FIG.1

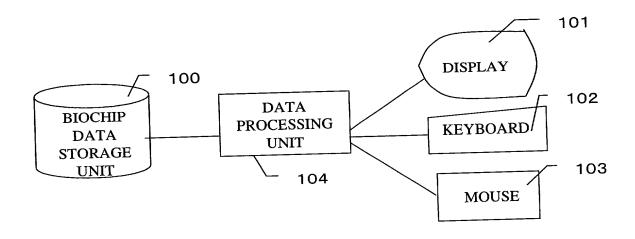


FIG.2

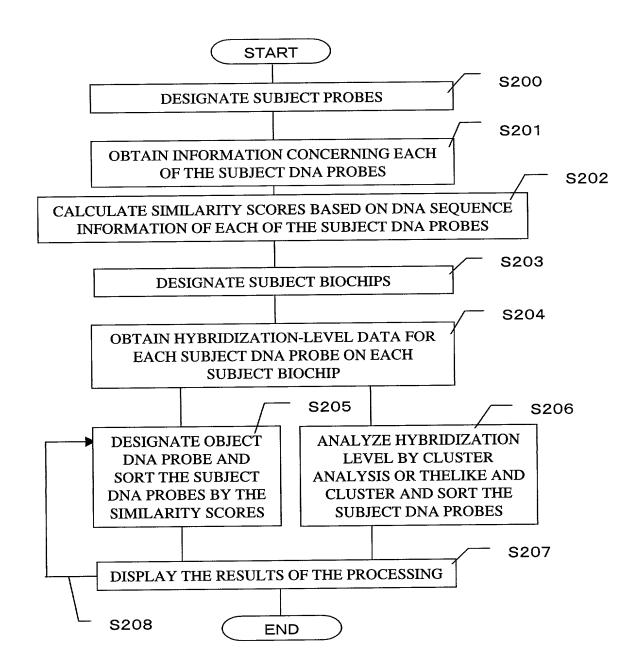


FIG.3

EXAMPLE OF DATA STRUCTURE 300 **BIOCHIP TABLE BIOCHIP ID BIOCHIP NAME** 302 **BIOCHIP DEFINITION HYBRIDIZATION** INFORMATION LEVEL TABLE **BIOCHIP EXPERIMENT BIOCHIP ID INFORMATION** Ν DNA PROBE ID 301 DNA PROBE TABLE HYBRIDIZATION LEVEL DNA PROBE ID **SPOT IMAGE** DNA PROBE NAME DNA PROBE DEFINITION **INFORMATION** DNA PROBE EXPERIMENT **INFORMATION**

FIG.4

-	300	EXAMPLE OF BIOCHIP DATA

	ВІОСНІР	BIOCHIP DEFINITION	BIOCHIP EXPERIMENT		
BIOCHIP ID	NAME	INFORMATION	INFORMATION		
1	Chip 1	Definition about Chip 1	Sample from the Stage A (1D)		
2	Chip 2	Definition about Chip 2	Sample from the Stage B (3D)		
3	Chip 3	Definition about Probe 3	Sample from the Stage C (1W)		
:	•	•			
n	Chip n	Definition about Chip n	not used.		

FIG.5

301 EXAMPLE OF DNA PROBE DATA

DNA PROBE ID	DNA PROBE NAME	DNA PROBE DEFINITION INFORMATION	DNA PROBE SEQUENCE
1	Probe1	Definition about Probe 1	ACGGGACGTTCCCTCGGAGG
2	Probe2	Definition about Probe 2	ACGGGACGTTCCCCCGGAGG
3	Probe3	Definition about Probe 3	TTTGGACGTTCCAATAGAGG
4	Probe4	Definition about Probe 4	TTTGGACGTTCCAATAGGGG
5	Probe5	Definition about Probe 5	TTGGGACGTTCCAATAGGAG
	:	:	:
m	Probe m	Definition about Probe n	TTGGGACGTTCCAATAGGAG

FIG.6

EXAMPLE OF HYBRIDIZATION-LEVEL DATA

/ 302a				302b			302c				
BIOCHIP	DNA PROBE ID	HYBRIDIZATION LEVEL	SPOT IMAGE	BIOCHIP ID	DNA PROBE ID	HYBRIDIZATION LEVEL	SPOT IMAGE	BIOCHIP ID	DNA PROBE ID	HYBRIDIZATION LEVEL	SPOT IMAGE
1	1	31,916	0	2	1	43,416	0	3	1	21,916	(2)
1	2	224		2	2	41,224	0	3	2	11,224	
1	3	41.231	0	2	3	2,107	49	3	3	10,007	
1	4	24,107	0	2	4	25,307	0	3	4	21,107	
1	5	9,607		2	5	1,807	,	3_	5	1,507	ś
:	:	:		:	:	:		:		:	
1	m	9,753	*** };.*	2	m	853		3	m	5,753	

FIG.7

EXAMPLE OF CALCULATED SIMILARITY SCORES

Key Target	Probe1	Probe2	Probe3	Probe4	Probe5
Probe1	80	76	40	56	44
Probe2	76	80	44	52	44
Probe3	40	44	80	36	52
Probe4	56	52	36	80	48
Probe5	44	44	52	48	80

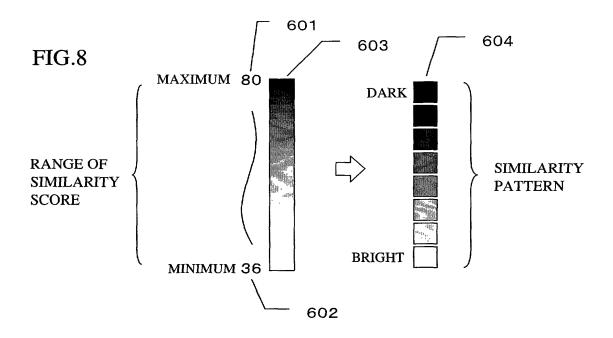


FIG.9

	301				605 \ \ \ 606
DNA PROBE ID	DNA PROBE NAME	DNA PROBE DEFINITION INFORMATION	DNA PROBE SEQUENCE	SIMILARITY SCORE	SIMILARITY PATTERN
1	Probe1	Definition about Probe 1	ACGGGACGTTCCCTCGGAGG	80	
2	Probe2	Definition about Probe 2	ACGGGACGTTCCCCCGGAGG	76	
3	Probe3	Definition about Probe 3	TTTGGACGTTCCAATAGAGG	40	
4	Probe4	Definition about Probe 4	TTTGGACGTTCCAATAGGGG	56	
5	Probe5	Definition about Probe 5	TTGGGACGTTCCAATAGGAG	44	sile on the free
:	-	•	:		
m	Probe m	Definition about Probe n	TTGGGACGTTCCAATAG	nn	

^{*}Similarity score is a similarity score of each of the DNA probes with respect to the DNA probe:ID 1.

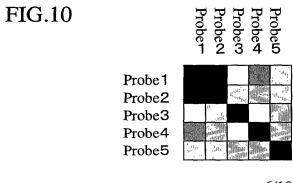


FIG.11

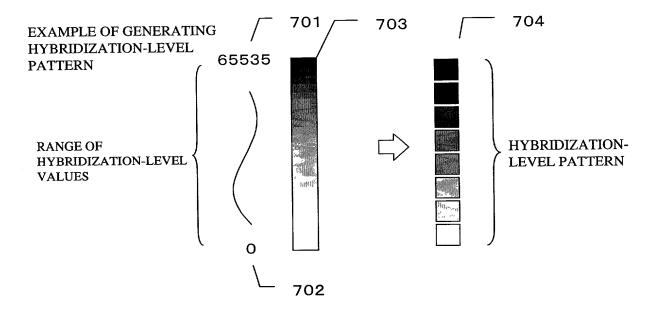


FIG.12
EXAMPLE OF CONVERTING HYBRIDIZATION-LEVEL PATTERN

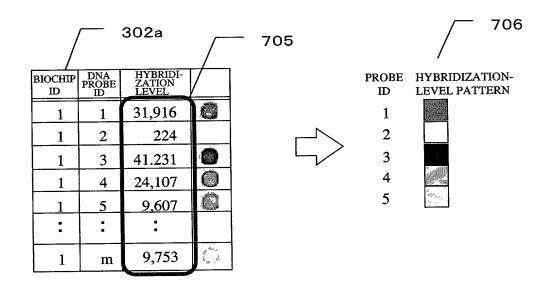


FIG.13

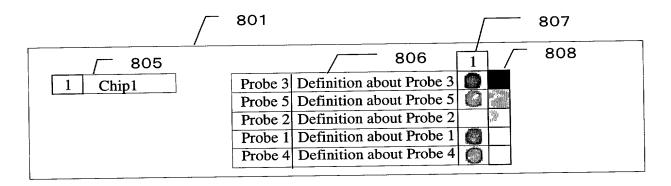


FIG.14

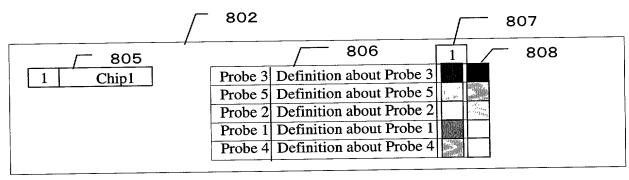


FIG.15

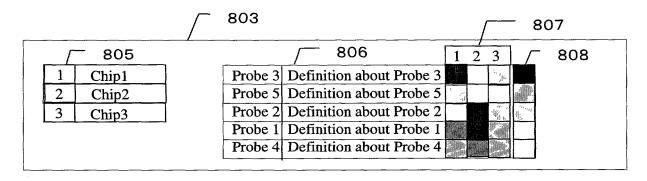


FIG.16

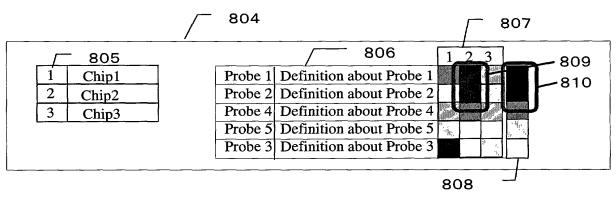
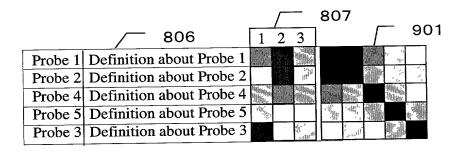


FIG.17



	805
1	Chip1
2	Chip2
3	Chip3

FIG.18

